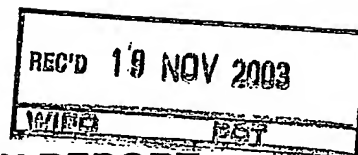


INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)





Applicant's or agent's file reference 20474WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NL02/00876	International filing date (day/month/year) 09.12.2002	Priority date (day/month/year) 27.12.2001
International Patent Classification (IPC) or both national classification and IPC C07D319/06		
Applicant DSM N.V. et al.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 04.06.2003	Date of completion of this report 18.11.2003
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Seelmann, I Telephone No. +49 89 2399-7480 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/NL02/00876

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-5 as originally filed

Claims, Numbers

1-8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NL02/00876**

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-8
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-8
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations

see separate sheet

1. The following document (D) is referred to in this communication:

D1: EP-A-1 024 139

2. The present application meets the requirements of Article 33(2) PCT. D1 discloses only a quaternary ammonium salt as phase transfer catalyst.

3. The present application, however, does not meet the requirements of Article 33(3) PCT for the following reasons: The closest state of the art for the present application is represented by D1. It discloses the same process for the preparation of 2-(6-substituted-1,3-dioxane-4-yl) acetic acid derivatives, the only difference is the nature of the phase transfer catalyst. The problem underlying the present application can, therefore, not be seen in the provision of an alternative method for the preparation of 2-(6-substituted-1,3-dioxane-4-yl) acetic acid derivatives, because the proposed solution would be seen as obvious. In the light of the extremely close relationship to the method of D1 it is considered that the man skilled in the art would regard the new method of this application as being an obvious alternative to the known. With compound (XI) (D1, page 16, lines 1-10 and claim 17) the prior art discloses already the combination of a phase transfer catalyst and an oxyating agent as described in the present claim 1. The difference resides only in the exchange of the N in the prior art for a P. However, that a quaternary phosphonium ion would lead to the same qualitative results as the quaternary ammonium ion would have been expected by a skilled person.

Therefore, the problem underlying the present application should be seen in the provision of a new method having unexpected properties over those of the closest prior art. In the absence of comparative test results or other appropriate information it is not possible to decide whether such a problem has been solved or not. The Applicant is therefore invited to provide favourable data or appropriate information. In the case where comparative tests are envisaged in order to support an inventive step, these must be carried out between the method of the present application having the maximum similarity (in terms of reaction parameters) with the method of the closest prior art, such that the effect is shown to have its origins in the distinguishing feature of the claimed invention.

4. According to the description (page 3, lines 18-21) R^A, R^B and R⁴-R⁷ can

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/NL02/00876

be substituted. This is not clear from the wording of the claims, terms such as alkyl and aryl are normally not to be understood as further substituted. Therefore, the formulation in the claims is misleading.